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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,447	12/12/2003	Takashi Sunamori	46440	2315

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EXAMINER

EINSMANN, MARGARET V

ART UNIT PAPER NUMBER

1751

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,447

Applicant(s)

SUNAMORI ET AL.

Examiner

Margaret Einsmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/12/03; 10/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3,4,6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process as claimed wherein the amphoteric electrolyte is an amino acid and the colorant is a solvent dye, does not reasonably provide enablement for the use of any amphoteric electrolyte or any hydrophobic coloring matter substance, for example, a disperse dye. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. There is no indication that applicant had in his possession any process using an amphoteric electrolyte which is not an amino acid, for example aminonaphthol sulfonic acid, aminonaphthol disulphonic acid or gelatin, for example, as described in Konica, EP 2001139854, or an amphoteric surfactant such as a betaine.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting an essential step. See MPEP § 2172.01. The omitted step is: At the end of claim 1, applicant does not state whether the liquid portion of the composition is collected or the precipitated pigment is the product.

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Claims 2 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis in claim 1 for the limitation of claim 2, "the aqueous solution containing said coloring matter substance and an amphoteric electrolyte"

Claim 6 is indefinite because it is not clear what product is being claimed. Is applicant forming a pigment similar to the pigment in Sunamori et al US 6,136,907, or is the colorant a paste comprising water, undistilled solvent, amphoteric electrolyte and hydrophobic colorant? The last step of claim 1 is subjecting the aqueous solution to centrifugation. Is the liquid collected or is the product? On page 20 of the specification, a transparent colored solution is formed. If that is the claimed product, the examiner suggests that the claim be amended to claim an aqueous colorant composition.

No art was found to reject the pending claims.

Sunamori et al., US 6,136,907 teaches a method of purifying a functional compound such as a pigment (hydrophobic colorant) which comprises forming a composition comprising water, the pigment and a water-miscible organic solvent and contacting with an ion-exchange resin. See col 2 lines 50 et seq. Amphoteric polyelectrolytes may be used as the ion exchange resin (Col 5 line 59) . The process is used to form pigments of not more than 3 microns in size, which are dispersed in binder resins.

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References A,B and E teach the formation of a water-soluble colorant by reacting a hydrophobic pigment with a compound which may be an amino acid to form a water soluble colorant which is then used in aqueous colorants systems. Applicant's process forms an aqueous of a hydrophobic colorant and an amphoteric electrolyte (amino acid.). See abstracts.

Chandler, US 6,599,331, discloses dissolving an oil-soluble dye in a solvent, adding a polymer, removing the solvent by filtration, to forming dye-polymer particles, which are suspended in nonionic surfactant an water. See Figure 1.

Goldman et al., US 5,626,634, mixes an aqueous presscake of a solvent dye with a water miscible organic solvent and heats, forming a concentrated solution of oil soluble dye in solvent and 0-15% water.

EP 0659852 teaches an aqueous ink composition comprising a water-soluble dye, water, a water-soluble organic solvent and a basic amino acid such as lysine, arginine, histidine or ornithine.

EP 0509688 teaches a mixture of water and a water-soluble organic solvent and amphoteric surfactants such as N,N-dimethyl-N-dodecyl amino oxide, N-dodecyl-N,N-dimethyl glycine, polyglycol ether derivatives and sulfobetanes. See pages 2-4.

EP 0924272 provides aqueous ink jet inks comprising an amphoteric surfactant, an insoluble (hydrophobic) colorant a cationic dispersant and an amphoteric surfactant. See [0026]

US 4,802,989 discloses a process of purifying a water soluble dye by mixing with pure water and removing heavy metal ions by filtration in an ion-exchange column.

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There is no suggestion to use the process with a hydrophobic dye dissolved in a water-miscible organic solvent, nor do patentees suggest the addition of an amphoteric electrolyte to the aqueous dye composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is 571-272-1314. The examiner can normally be reached on 7:00 AM -4:30 PM M-W and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/25/05


Margaret Einsmann
Primary Examiner
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